**Amendments to the Claims**:

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**:

Claims 1-28 (Canceled).

29. (New): Topotecan monohydrochloride pentahydrate having an x-ray diffraction pattern that is substantially the same as Figure 1.

30. (New): Topotecan monohydrochloride pentahydrate having an inverse second derivative FT-IR spectrum for the spectral region of 1800 $cm^{-1}$- 1500 $cm^{-1}$ that is substantially the same as Figure 3.

31. (New): Topotecan monohydrochloride pentahydrate that provides an x-ray diffraction pattern having peaks at 4.5 ± 0.1 (° 2θ), 6.4 ± 0.1 (° 2θ), 7.1 ± 0.1 (° 2θ), 9.0 ± 0.1 (° 2θ), 10.1 ± 0.1 (° 2θ), 11.5 ± 0.1 (° 2θ), 12.6 ± 0.1 (° 2θ), 13.1 ± 0.1 (° 2θ), 14.1 ± 0.1 (° 2θ), 15.5 ± 0.1 (° 2θ), 17.9 ± 0.1 (° 2θ), 18.7 ± 0.1 (° 2θ), 20.0 ± 0.1 (° 2θ), 20.3 ± 0.1 (° 2θ), 21.1 ± 0.1 (° 2θ), 21.8 ± 0.1 (° 2θ), 23.0 ± 0.1 (° 2θ), 24.8 ± 0.1 (° 2θ), 25.6 ± 0.1 (° 2θ), 26.6 ± 0.1 (° 2θ), 27.2 ± 0.1 (° 2θ), and 28.9 ± 0.1 (° 2θ).

32. (New): Topotecan monohydrochloride pentahydrate that provides an FT-IR spectrum having peaks at 1754 ± 2 $cm^{-1}$, 1745 ± 2 $cm^{-1}$, 1740 ± 2 $cm^{-1}$, 1658 ± 2 $cm^{-1}$, 1649 ± 2 $cm^{-1}$, 1596 ± 2 $cm^{-1}$, 1584 ± 2 $cm^{-1}$, and 1507 ± 2 $cm^{-1}$.

33. (New): Topotecan monohydrochloride pentahydrate according to claim 29 having a water content in a range of about 10.5 wt% to about 16.5 wt%.

34. (New): Topotecan monohydrochloride pentahydrate according to claim 29 which is isolated topotecan monohydrochloride pentahydrate.

35. (New): Topotecan monohydrochloride pentahydrate according to claim 30 which is isolated topotecan monohydrochloride pentahydrate.

36. (New): Topotecan monohydrochloride pentahydrate according to claim 31 which is isolated topotecan monohydrochloride pentahydrate.

37. (New): Topotecan monohydrochloride pentahydrate according to claim 32 which is isolated topotecan monohydrochloride pentahydrate.

38. (New): A process for preparing the crystalline form of topotecan monohydrochloride pentahydrate according to claim 29, wherein the process comprises steps of:

[a] forming an aqueous organic solvent mixture containing topotecan monohydrochloride;

[b] recrystallizing the topotecan monohydrochloride from the aqueous organic solvent mixture to precipitate said crystalline form of topotecan monohydrochloride pentahydrate; and

[c] collecting, by filtration, said crystalline form of topotecan monohydrochloride pentahydrate.

39. (New): The process according to claim 38, wherein the organic solvent of the aqueous organic solvent is selected from the group consisting of acetone, tetrahydrofuran, methanol, ethanol, n-propanol, isopropanol, dimethylsulfoxide, N,N-dimethylformamide, and mixtures thereof.

40. (New): The process according to claim 38, wherein the organic solvent of the aqueous organic solvent mixture is selected from the group consisting of ethyl acetate, acetonitrile, dichloromethane, and mixtures thereof.

41. (New): The process according to claim 38, wherein the organic solvent of the aqueous organic solvent mixture is selected from the group consisting of acetone, tetrahydrofuran, and n-propanol.

42. (New): The process according to claim 38, wherein the aqueous organic solvent comprises acetone and a 0.05 N aqueous hydrochloric acid solution.

43. (New): The process according to claim 42, wherein the ratio of the volume of acetone to aqueous hydrochloric acid is about 2:1.

44. (New): The process according to claim 38, wherein the aqueous organic solvent mixture is heated to a temperature of about 58°C.

45. (New): The process according to claim 44, wherein the heated aqueous organic solvent mixture is cooled at a rate in the range of about 0.1°C/min to about 1°C/min.

46. (New): The process according to claim 45, wherein the cooling rate is about 0.25°C/min.

47. (New): A process for preparing a crystalline form of topotecan monohydrochloride pentahydrate according to claim 29, wherein the process comprises steps of:

[a] forming an aqueous organic solvent mixture containing topotecan monohydrochloride;

[b] slurrying the topotecan monohydrochloride with the aqueous organic solvent mixture to form said crystalline form of topotecan monohydrochloride pentahydrate; and

[c] collecting, by filtration, said crystalline form of topotecan monohydrochloride pentahydrate.

48. (New): The process according to claim 47, wherein the aqueous organic solvent comprises acetone and a 0.05 N aqueous hydrochloric acid solution.

49. (New): The process according to claim 48, wherein the ratio of the volume of acetone to aqueous hydrochloric acid is about 8:1.

50. A method of treating cancer which comprises administering to a subject in need thereof an effective amount of the compound according to claim 29.

51. The method according to claim 50, wherein said cancer is selected from the group of ovarian cancer, breast cancer, endometrial cancer, esophageal cancer, small and non-small cell lung cancer, cervical cancer, colorectal cancer, neuroblastomas and glioma.

52. The method according to claim 50, wherein said cancer is selected from the group of myelodysplastic syndrome, acute myelogenous leukemia and chronic myelomonocytic leukemia.

53. A method for ameliorating one or more of the symptoms associated with cancer, which comprises administering to a subject in need thereof an effective amount of the compound according to claim 29, wherein the one or more symptoms associated with cancer are selected from the group: pain, fatigue, insomnia, interference with daily activity, dyspnea, chest pain, hemoptysis and hoarseness.